

FIG. 1

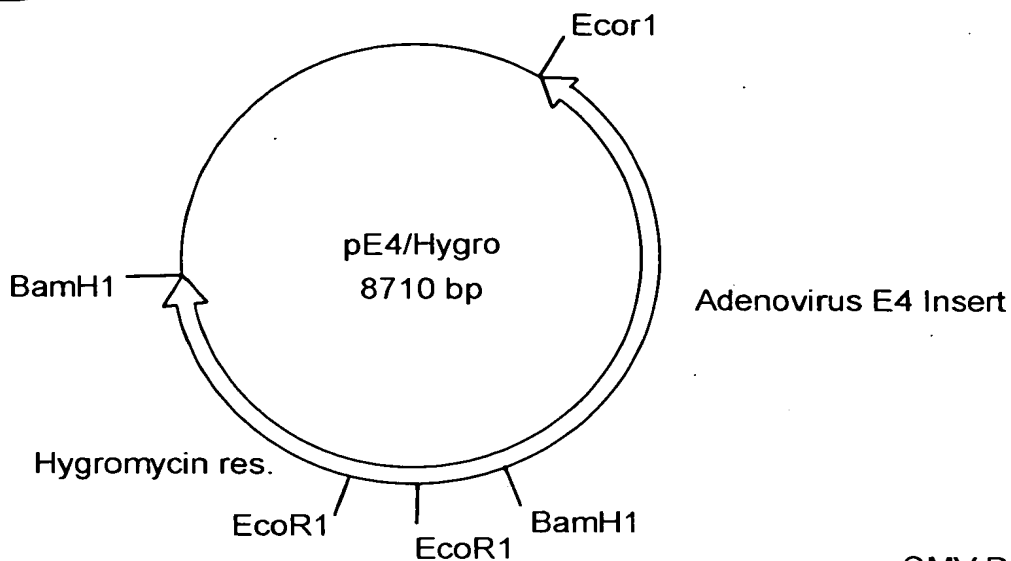


FIG. 2

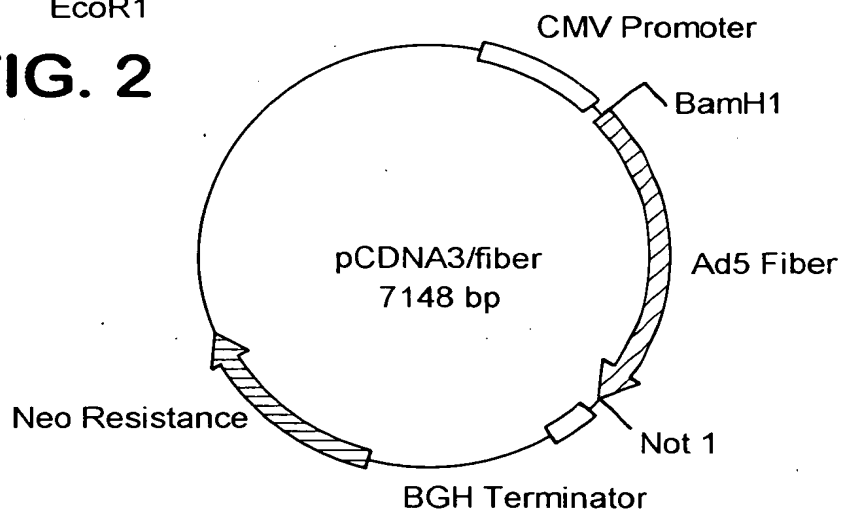


FIG. 3

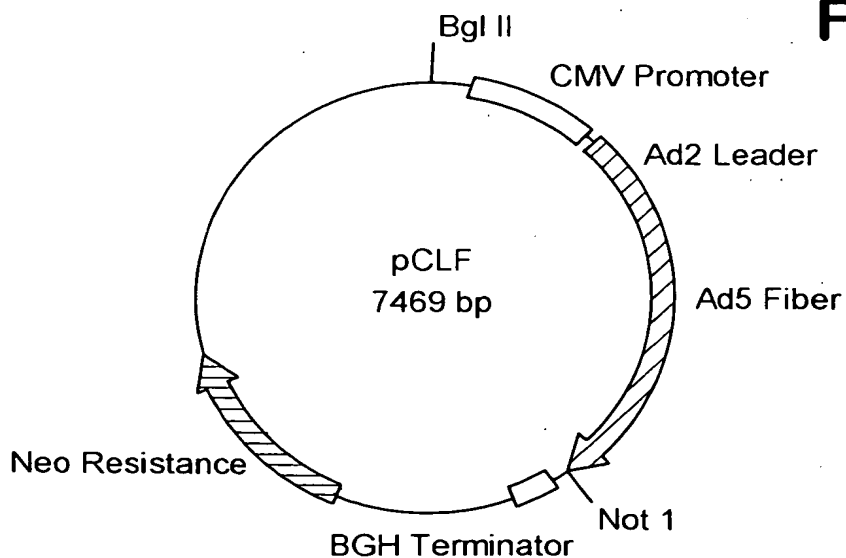


FIG. 4

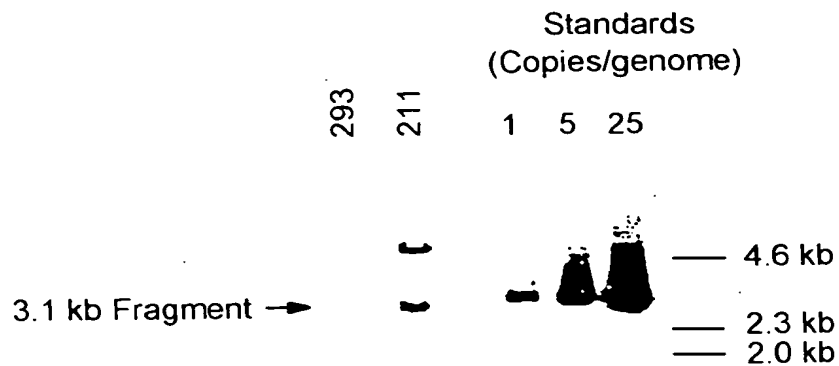


FIG. 5

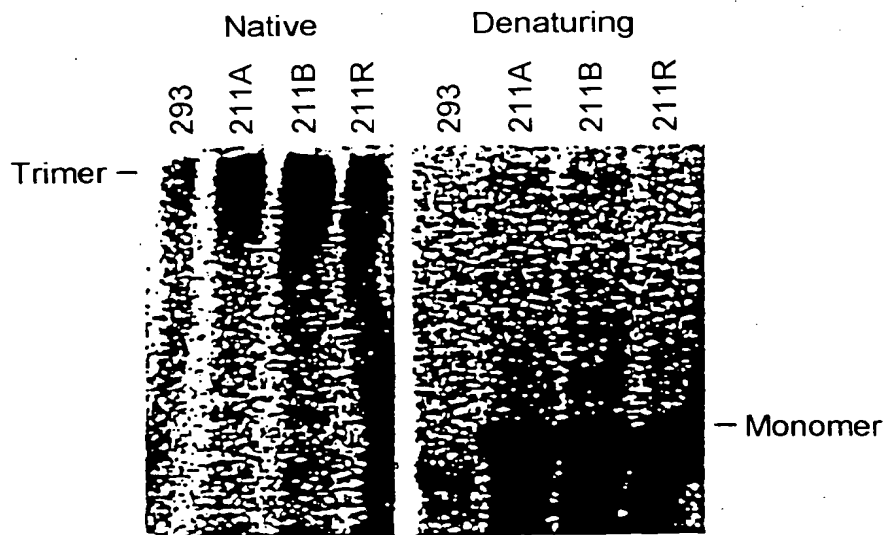


FIG. 6

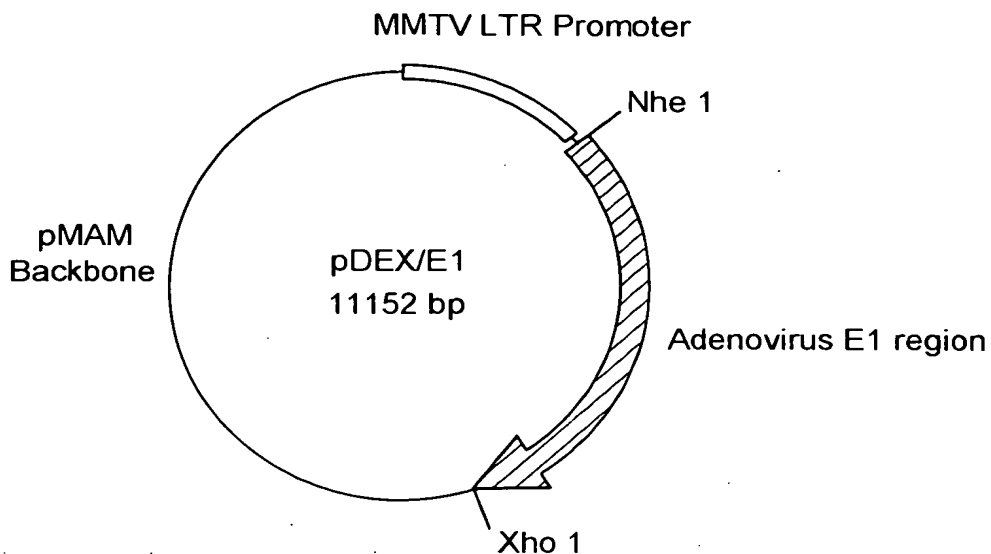


FIG. 7

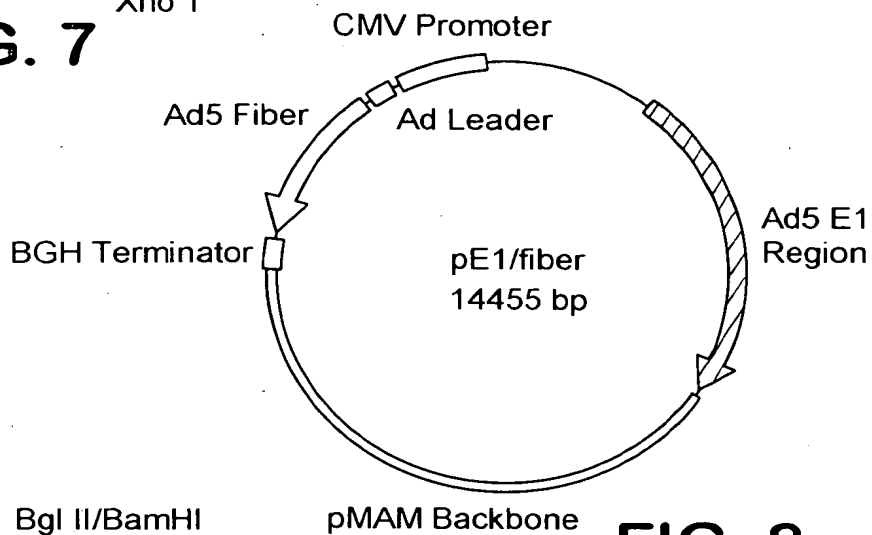


FIG. 8

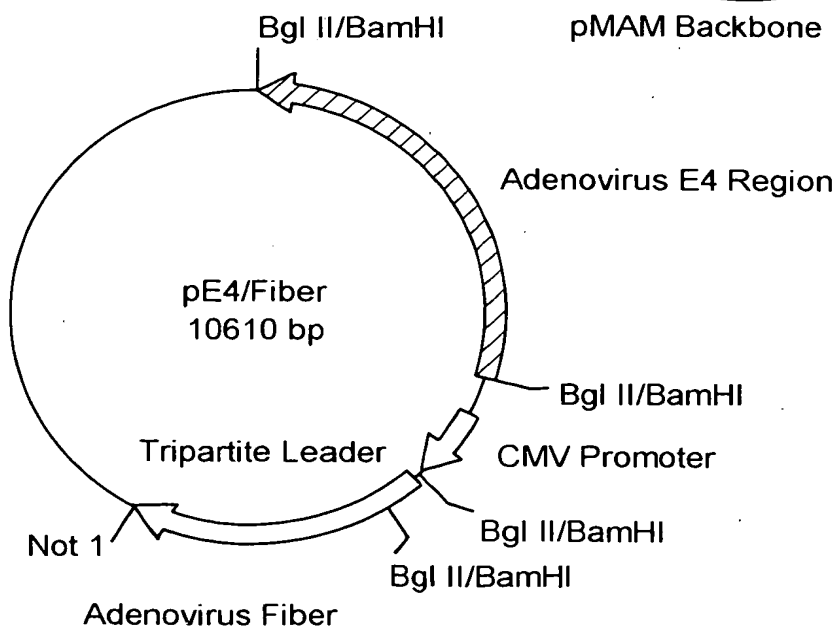


FIG. 9



HELLER EHRMAN WHITE & MCAULIFFE LLP
Sheet 5 of 23

Title: ADENOVIRUS VECTORS, PACKAGING CELL LINES,
COMPOSITIONS, AND METHODS FOR PREPARATION
AND USE
Applicant: Von Seggern et al.
Serial No.: 09/482,682
Filed: January 14, 2000
Examiner: Foley, S.A.
Art Group: 1648
Our Docket No.: 22908-1235B

pΔE1Bβgal

FIG. 10

Functional
Packaging
Sequences



EI Deleted

LacZ Inserted

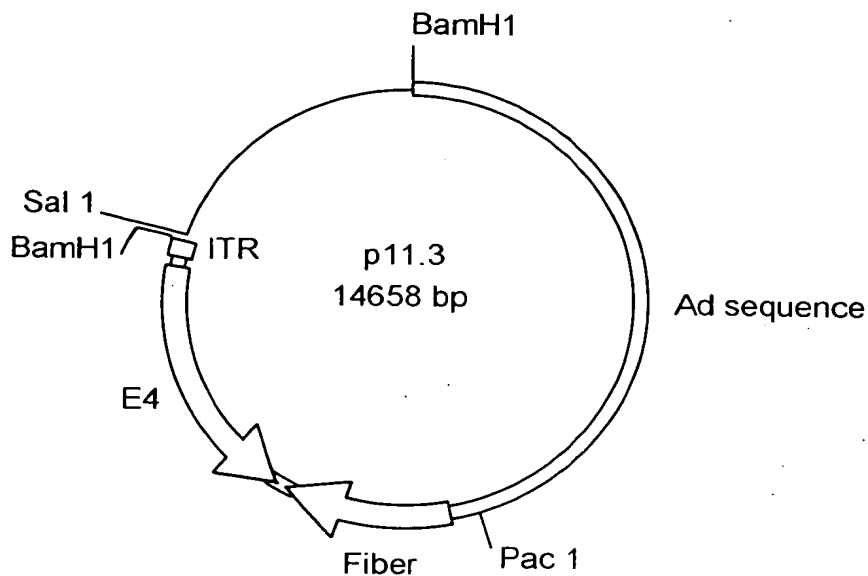
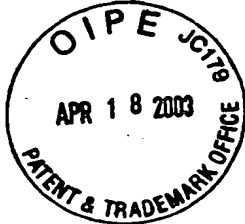


FIG. 11

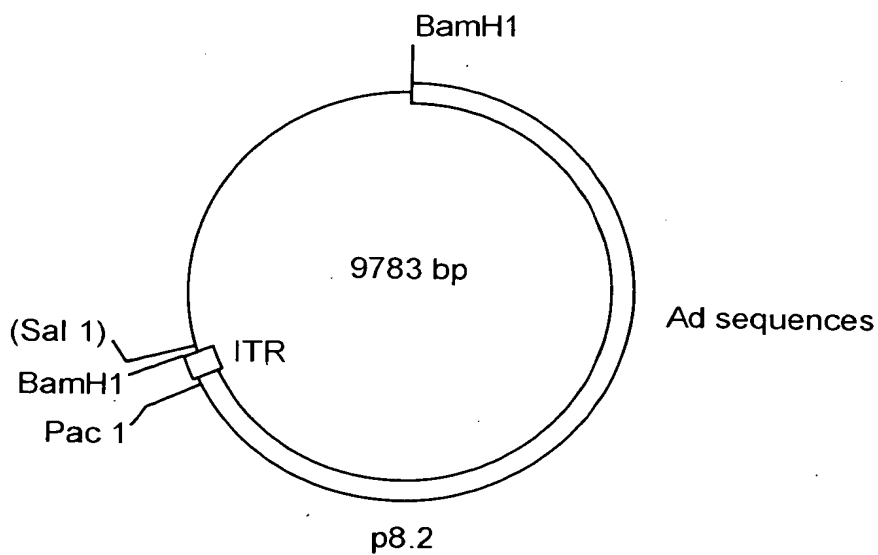


FIG. 12

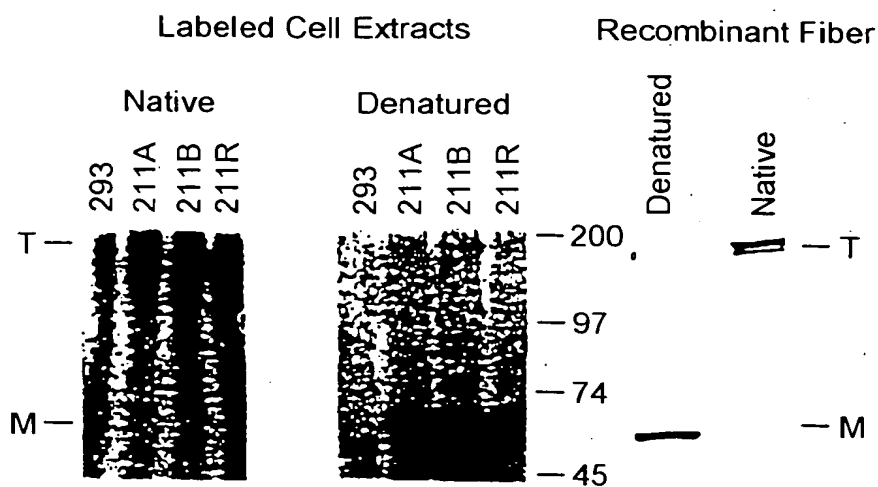
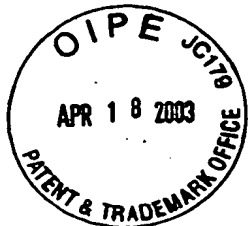


FIG. 13

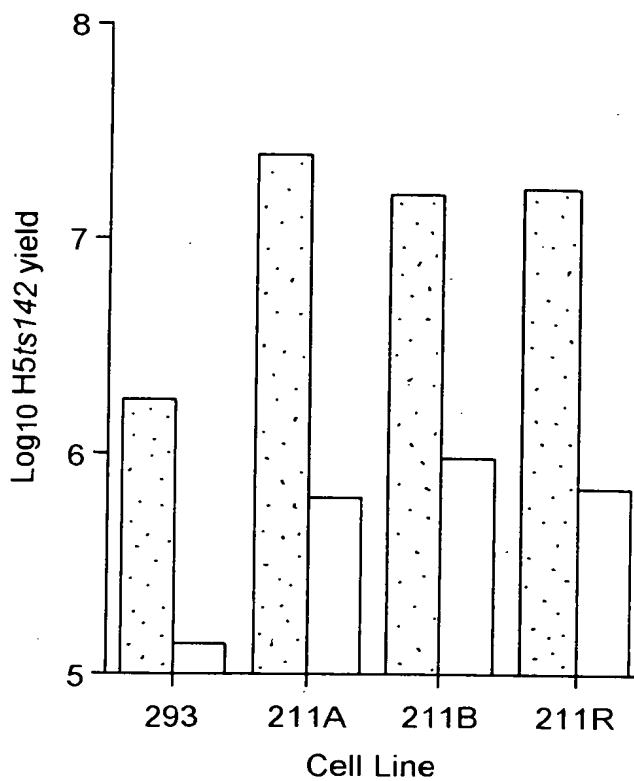


FIG. 14



Ad2/5

Ad3

Ad19/37

Ad40 (1)

Ad40 (2)

M	-	K	R	A	R	P	S	E	D	T	F	N	P	V	P	Y	D	T	E	T	G	P	P	T	V	P	F	L	T	P	P	F	V	S	P	N	G	F	Q	E	S	P	P
M	A	K	R	A	R	L	S	-	T	S	F	N	P	V	P	Y	E	D	E	S	S	-	Q	H	P	F	I	N	P	G	F	I	S	P	D	G	F	T	Q	S	P	N	
M	S	K	R	L	R	V	E	D	-	F	N	P	V	P	Y	G	Y	A	R	N	Q	-	N	I	P	F	L	T	P	P	F	V	S	S	D	G	F	K	N	F	P	P	
M	-	K	R	A	R	F	-	E	D	D	F	N	P	V	P	Y	E	H	Y	N	-	P	L	D	I	P	F	I	T	P	P	F	A	S	S	N	G	L	Q	E	K	P	P
M	-	K	R	T	R	-	I	E	D	D	F	N	P	V	P	Y	D	T	S	S	T	P	S	-	I	P	Y	V	A	P	P	F	V	S	S	D	G	L	O	E	N	P	P

FIG. 15A



FIG. 15B

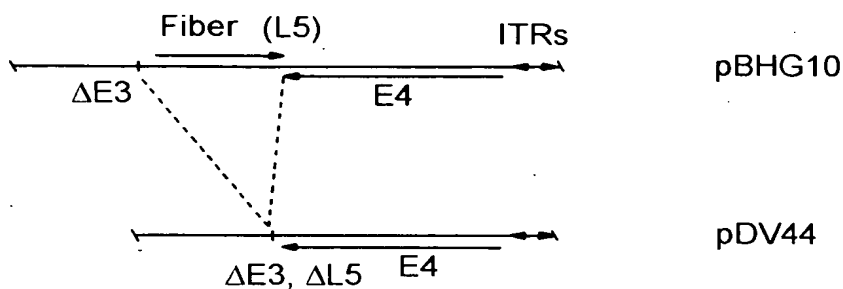


FIG. 16A

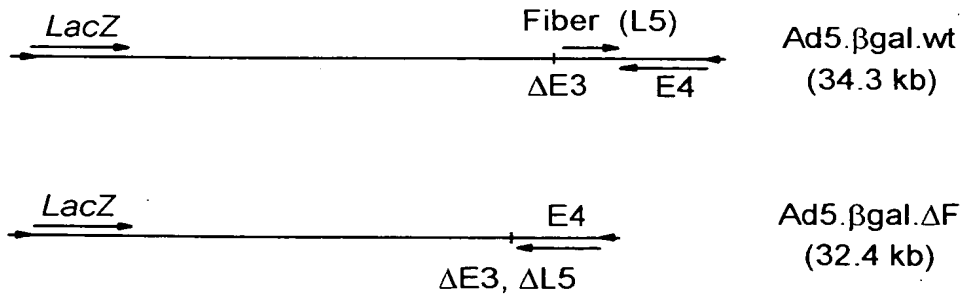


FIG. 16B



FIG. 17A

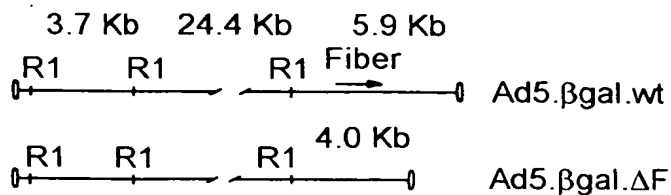


FIG. 17B

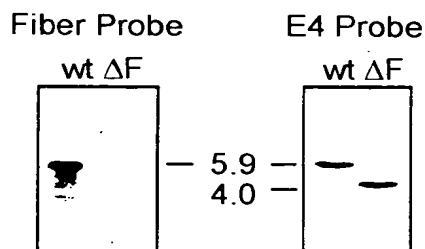


FIG. 17C

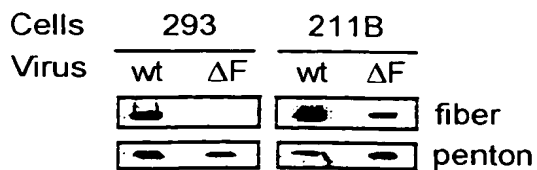


FIG. 18

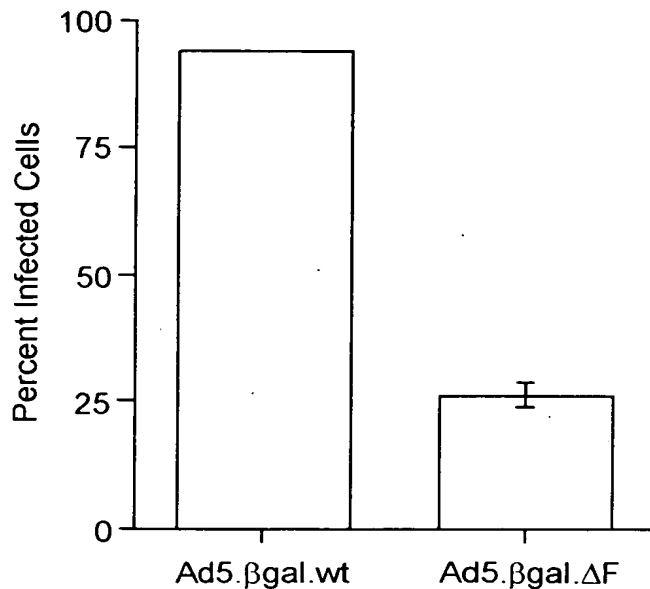


FIG. 19A

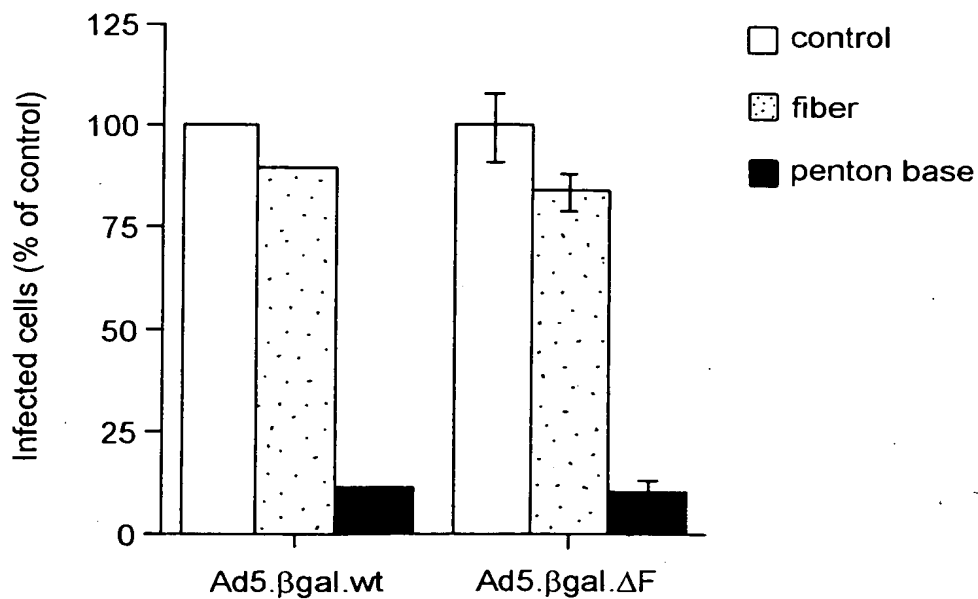
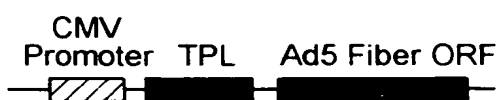


FIG. 19B



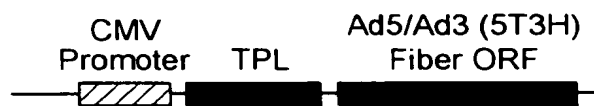
Improved Fiber-complementing Cell Lines



Line 633



Stable nuclear expression
of wt Ad5 fiber protein

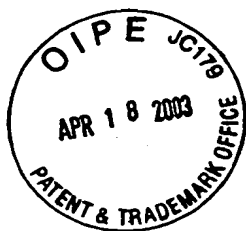


Line 644



Stable nuclear expression
of the chimeric Ad5/Ad3
fiber protein

FIG. 20



Pseudotyping of Ad. β gal. Δ F

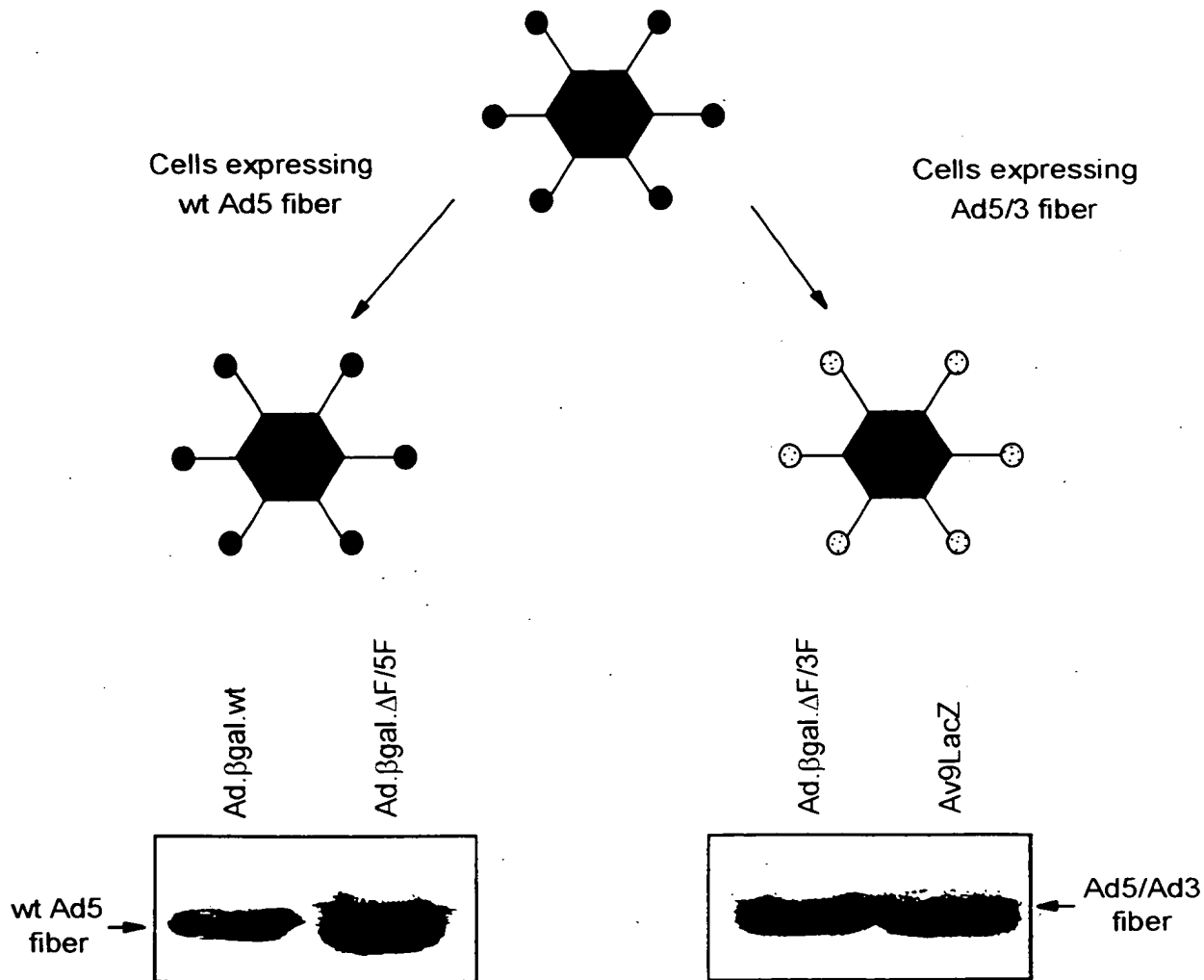
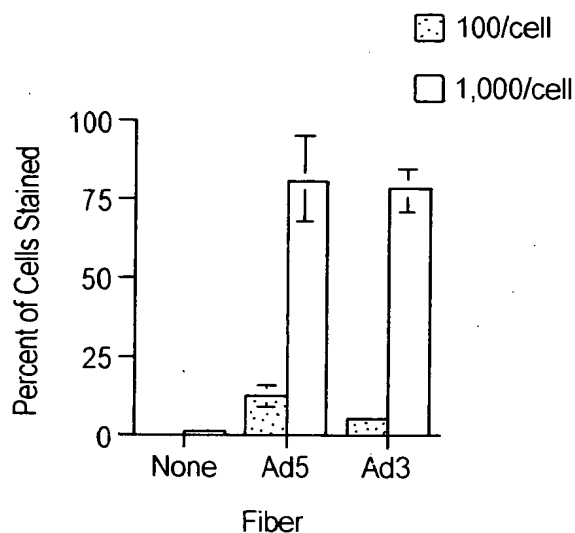


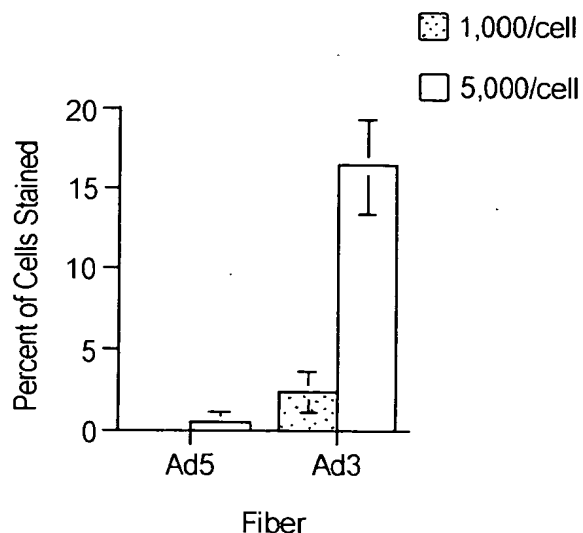
FIG. 21



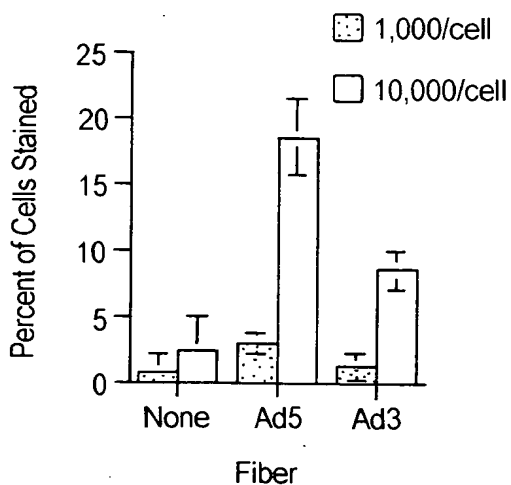
211B Cells (Human Embryonic Kidney)



MRC-5 Human Fibroblasts



A-10 Rat Aortic Endothelial Cells



THP-1 Human Monocytic Cells

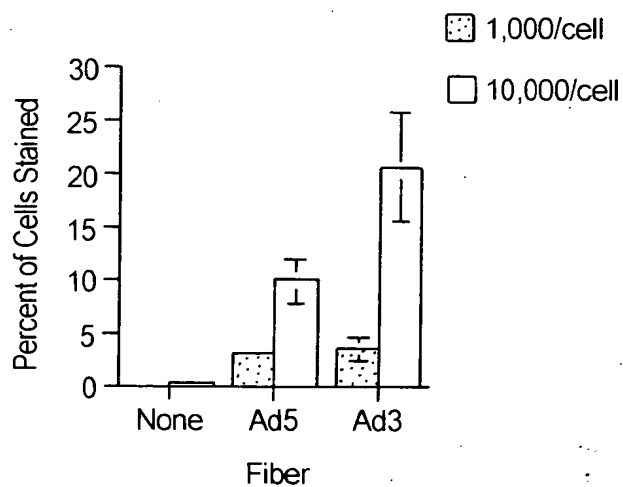


FIG. 22

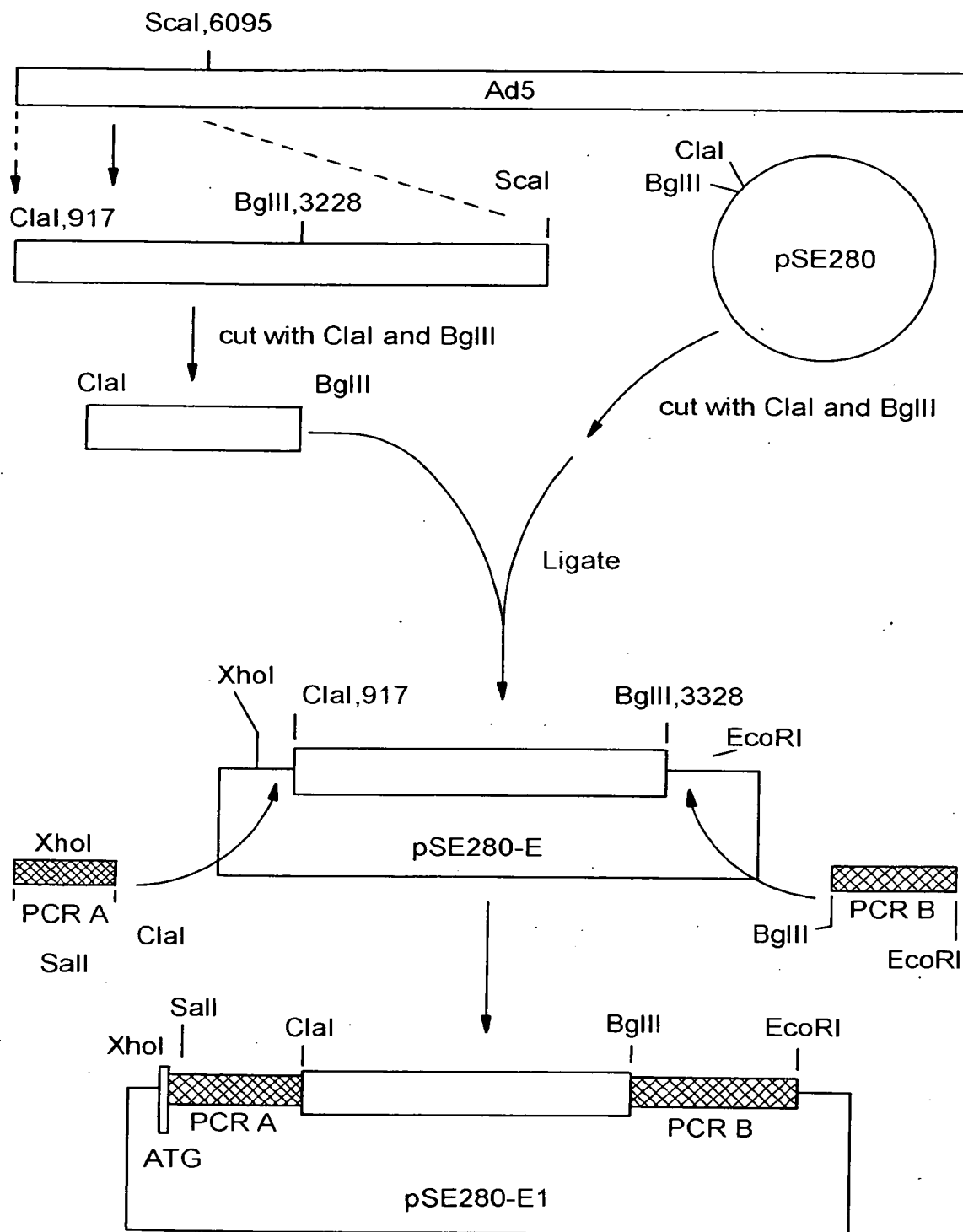


FIG. 23

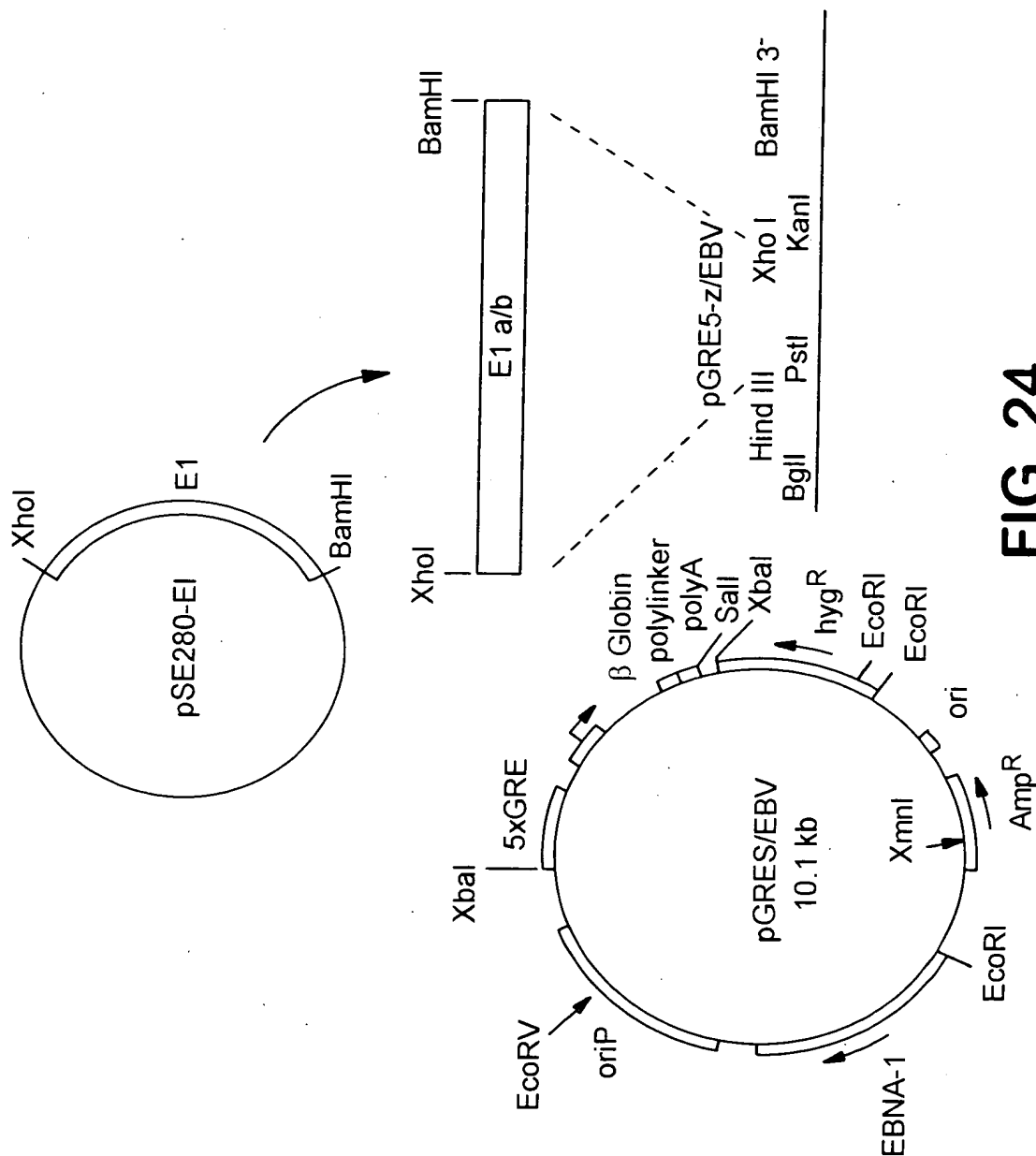
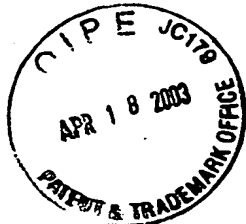


FIG. 24

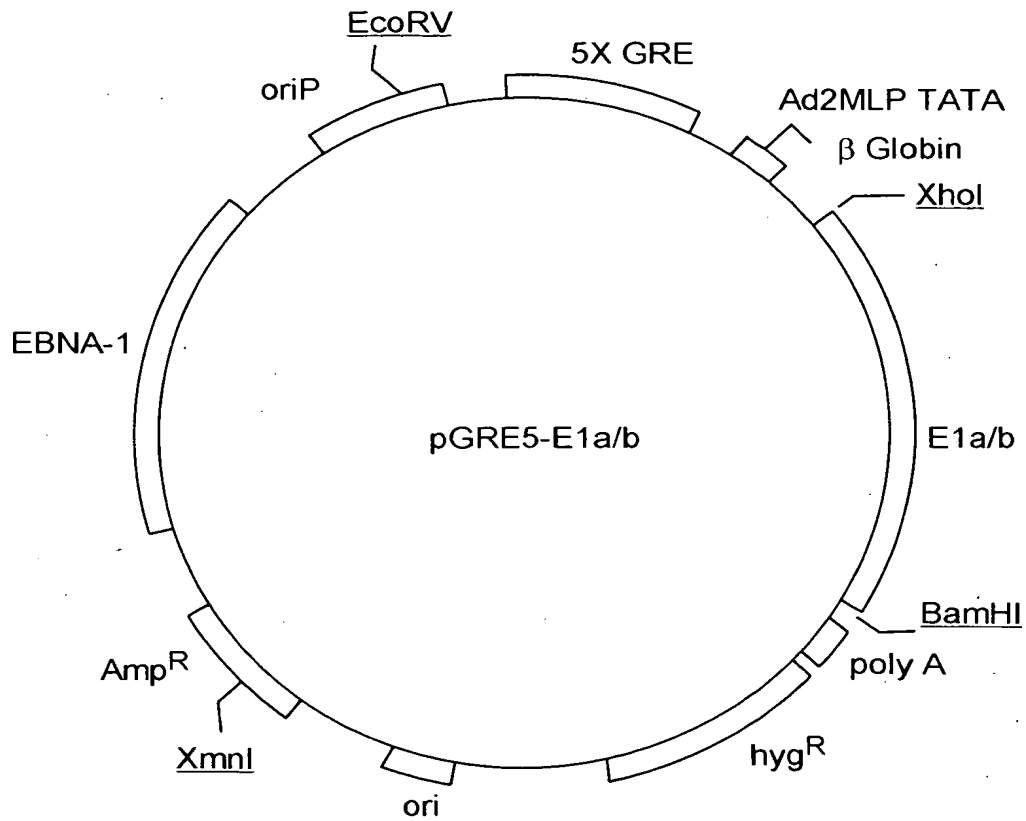


FIG. 25

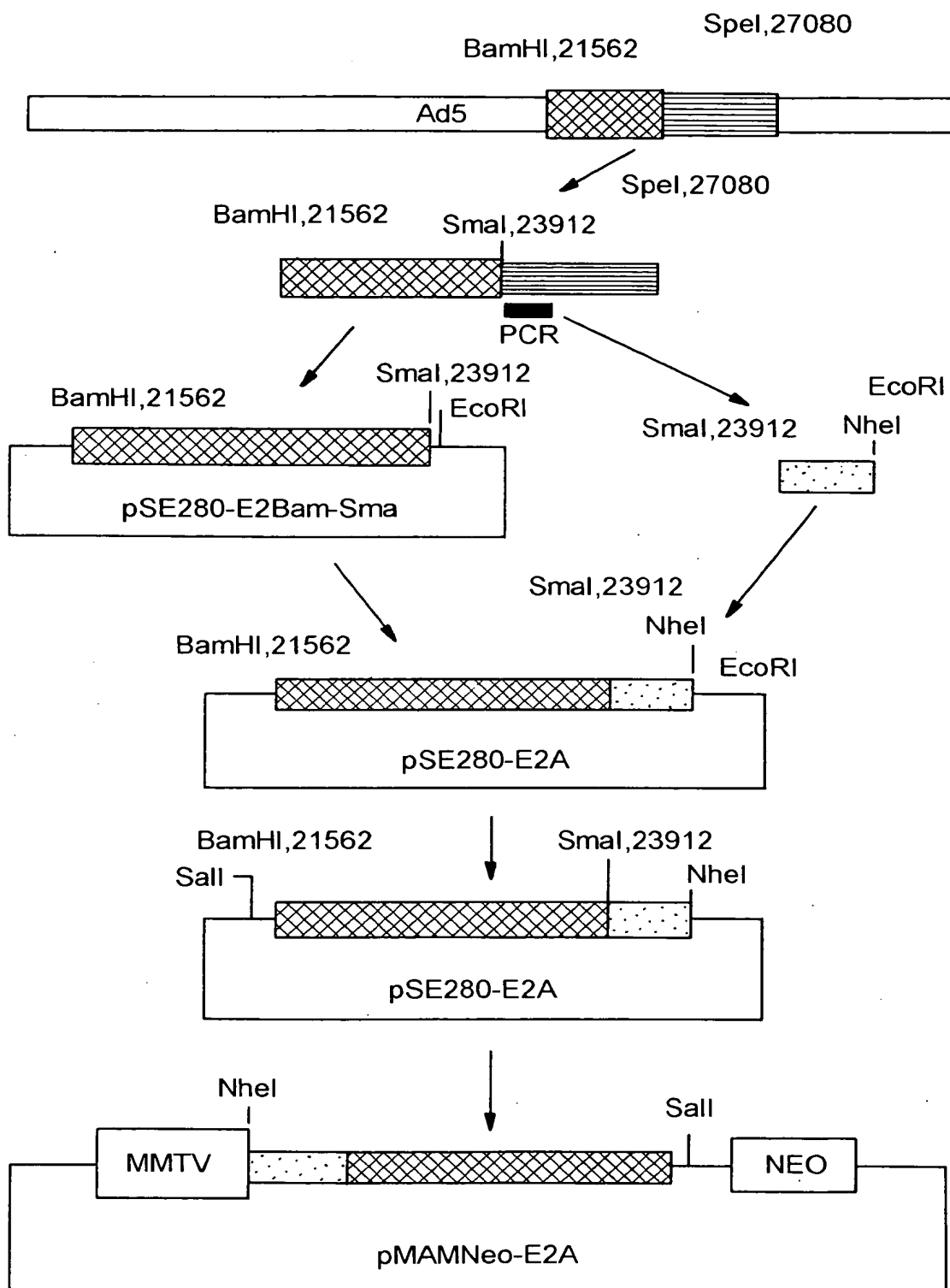


FIG. 26

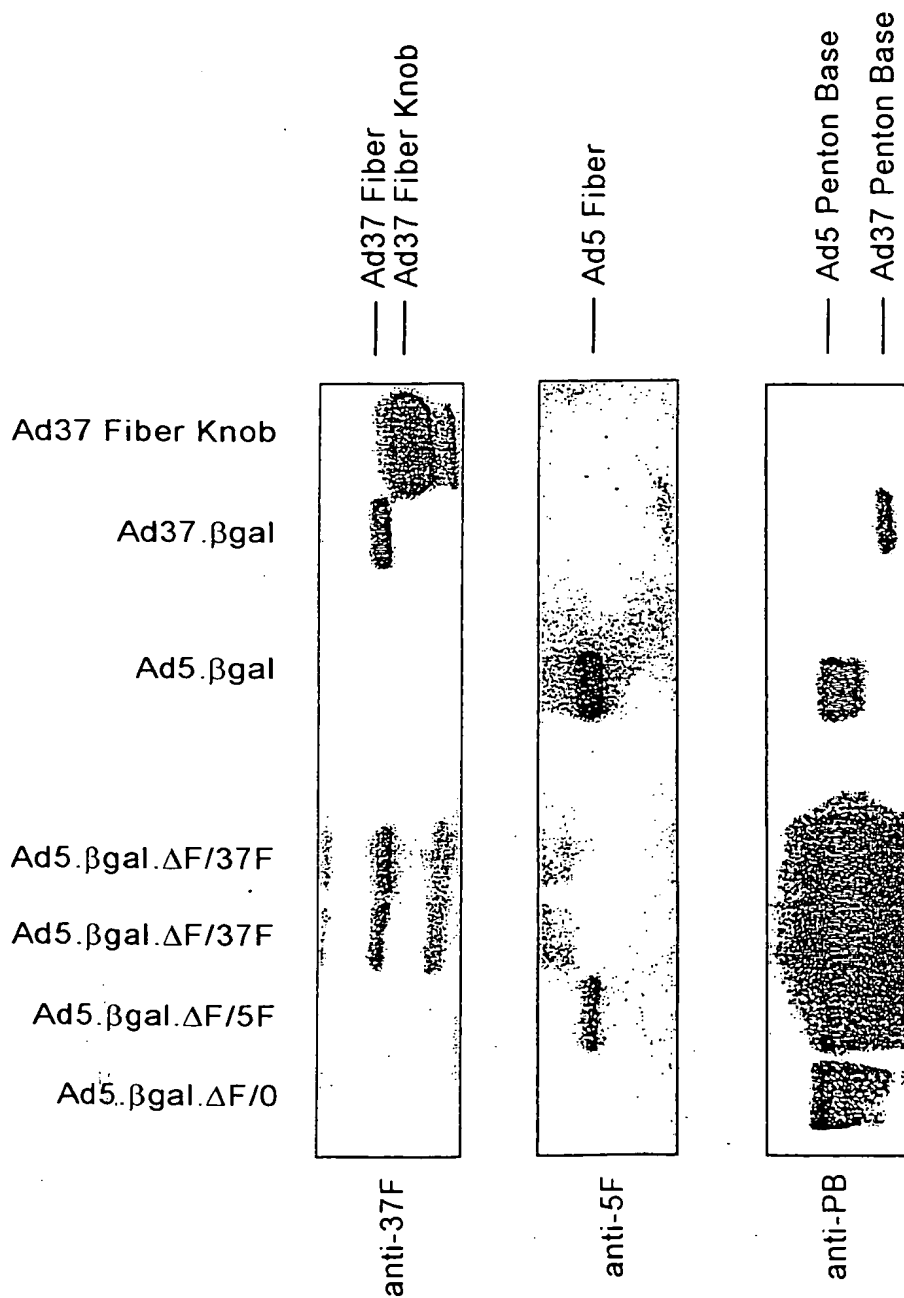


FIG. 27



PCR analysis for fiber presence contamination
of fiberless adenonovectors.

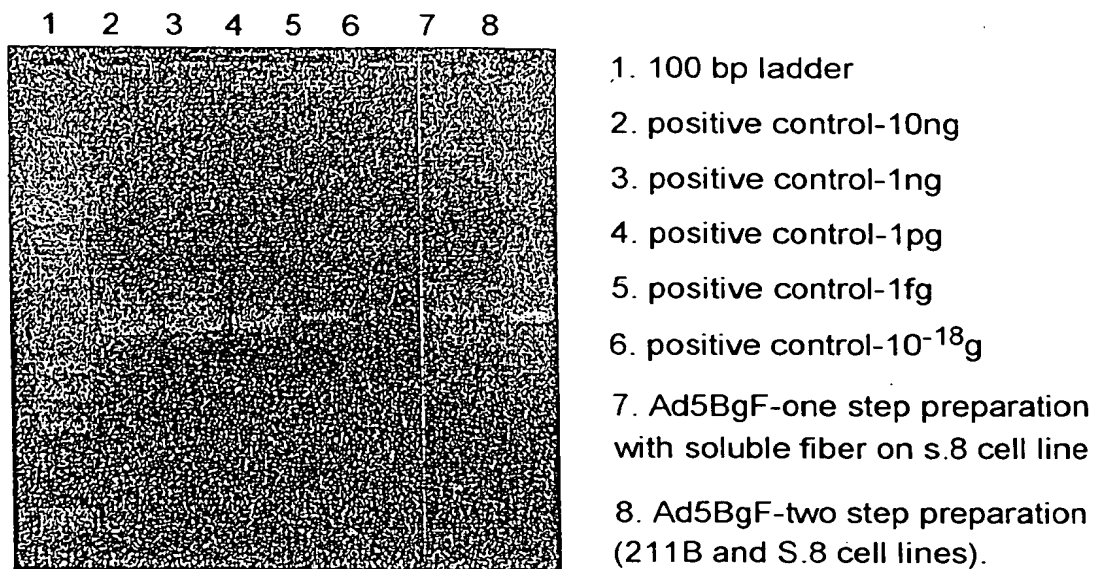


FIG. 28



Transduction Efficiency For Fiberless Virus with and without soluble fiber
(10ng/well) on S.8 cell line. Chemoluminescent reporter gene assay.

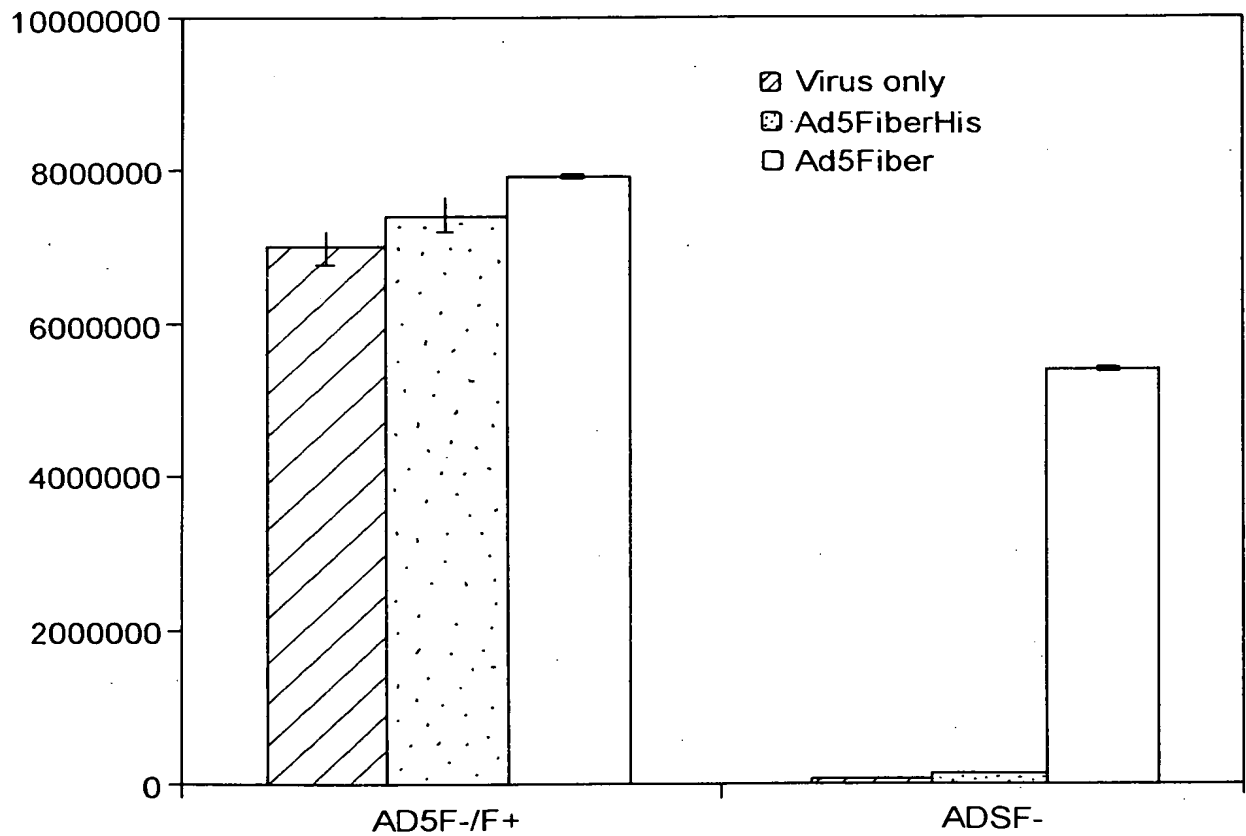


FIG. 29



Transduction Efficiency of Ad5BgF- on HDF cell line with
presence of different amount of 633 condition media.

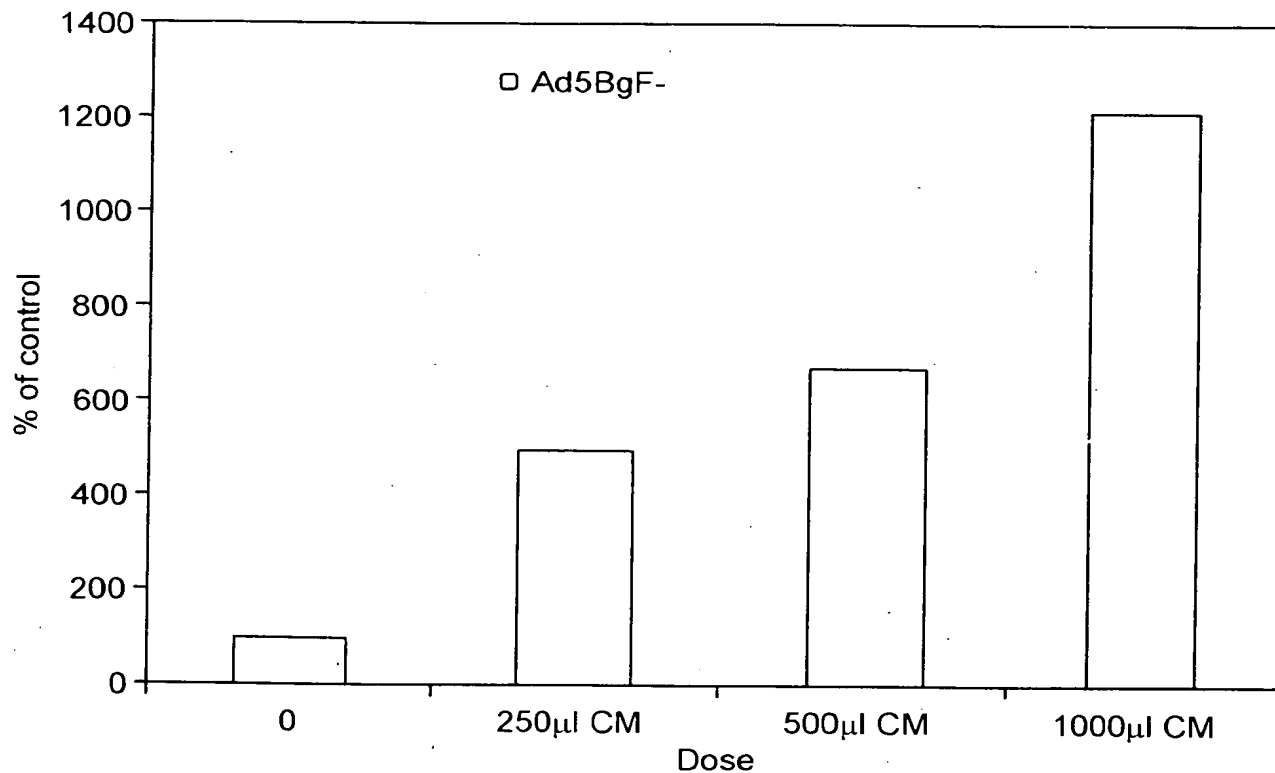


FIG. 30